



Hawks Motorsports  
1982-1992 Camaro/Firebird "C7" Front Spindle Kit

The Hawks Motorsports "C7" Style Front Spindle Kit upgrades the handling, braking and steering performance of your 1982-1992 Camaro or Firebird to modern performance levels. The built in geometry changes improves cornering ability. The modular brake mounting brackets accommodate various GM OEM brake components and allow you to easily upgrade your car with OE proven components. Steering improvements provide positive turn in and eliminate undesirable bumpsteer. Many key performance areas of your vehicle are upgraded with this on component upgrade.



**IMPORTANT:**

All work should be performed by a qualified technician and a professional alignment needs to be performed after installation is complete. Please read the entire set of instructions and fully understand all of the steps involved before beginning the project. Always make sure to wear the appropriate safety equipment for the job and properly support the vehicle. If you have any questions before, during or after the installation, feel free to contact Hawks Motorsports by phone at 1-864-855-2694 or by email at [sales@hawksmotorsports.com](mailto:sales@hawksmotorsports.com).

## Hawks Motorsports Upright Installation Instructions

**Disassembly:** Disassemble components to remove factory spindle. For new installations skip this section.

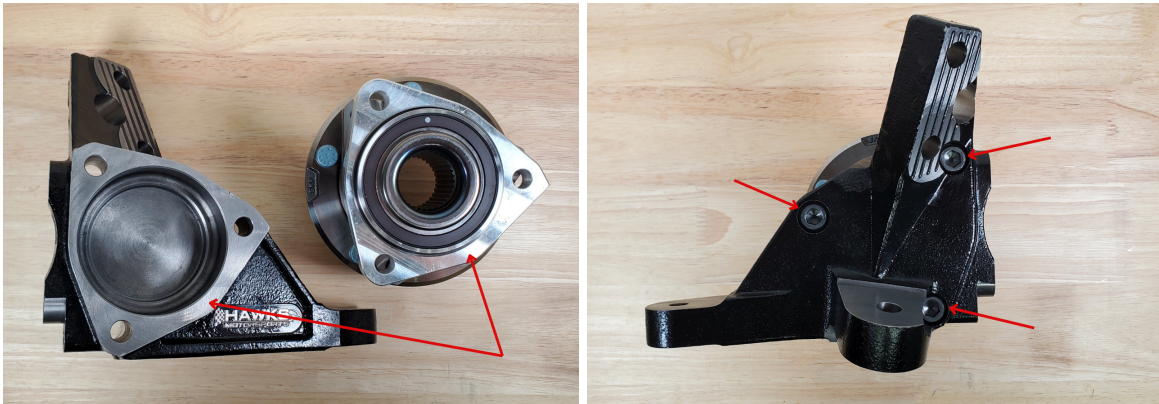
1. Raise the vehicle on jack stands so that the frame is level with the ground. Remove the front wheels from the vehicle.
2. Remove the brake hose from the brake caliper on both sides of the vehicle.  
NOTE: Plug the brake line to limit the amount of brake fluid leaking.
3. Remove the brake caliper from the factory spindle.
4. Remove the cotter pin and castle nut from the outer tie rod. Separate the outer tie rod from the steering arm. Save hardware if reusing.
5. Support the lower control arm with a floor jack. Loosen the 2 strut to spindle mounting bolts. Do not completely remove it at this point.
6. Loosen the ball joint nut until it is at the end of the treads on the ball joint. You will need to remove the cotter pin before loosening the nut.
7. Raise the lower control arm with a floor jack. Use a ball joint separator to shock the lower ball joint loose in the spindle so the spindle rests against the castle nut.
8. Remove the strut mounting hardware. Lower the floor jack slowly until the strut separates from the spindle. CAUTION: The coil spring will be under pressure.
9. With spring tension released, remove the lower ball joint castle nut, then the spindle and brake rotor assembly from the lower ball joint.

### **Installation:**

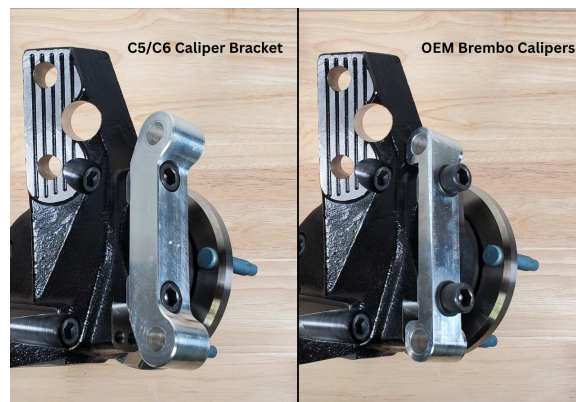
**NOTE: Now is a good time to replace the lower ball joint if yours are worn or damaged.**

10. With a floor jack under the lower control arm, place the correct upright assembly onto the lower control arm ball joint stud. Thread the flange nut onto the lower ball joint to keep the upright assembly in place.  
NOTE: The steering arm on the assembly will be pointing towards the front of the vehicle.
11. Reinstall the coil spring into the lower control arm. Ensure the spring is correctly located and slowly raise the lower control arm with the floor jack so the coil springs fit up into the upper spring pocket in the subframe.
12. Install the strut onto the upright strut mount. Install the 2 strut mount bolts and torque to 150 ft lbs.
13. Tighten the lower ball joint nut to 90 ft lbs. Reinstall the cotter pin into the ball joint stud and wrap around the castle nut.
14. Install the outer tie rod into the steering arm on the upright and tighten the castle nut. Torque the castle nut to 35 ft lbs plus additional torque to align and install the cotter pin. Trim the cotter pin as needed.
15. Repeat this process for the opposite side of the vehicle.

16. Install the supplied spacer and your wheel bearing pack onto the upright. Ensure the orientation is correct by identifying the thicker side of the spacer and matching this to the mounting flange on the upright. Torque these bolts to 90 ft lbs using a blue thread locker on the threads.



17. Install the supplied brake caliper mounting bracket onto the upright using the supplied M12 x 25mm bolts. If your caliper bracket uses a countersunk bolt you will not use washers underneath the head of the bolt. Torque the caliper bracket bolts to 85 ft lbs using a blue thread locker on the threads.

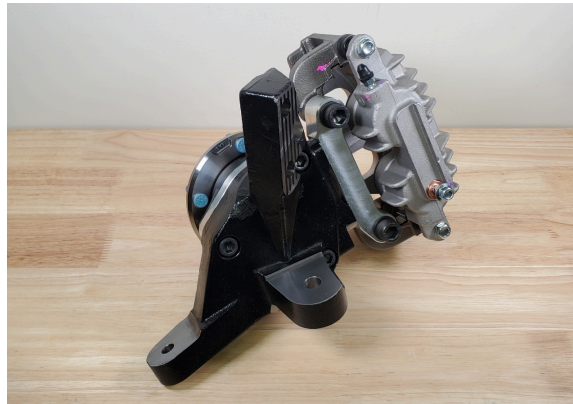


18. Install the brake rotor over the wheel bearing before installing the brake caliper.

Some GM brake rotors will use a smaller center ID for the wheel bearing. You may need to have your specific rotor machined to match the wheel bearing you are using.

If you are using a rotor specific to the platform the wheel bearing is from, often you can also use the small torx bolt to hold the caliper in place/flush up to the bearing.

19. Install the brake caliper onto the caliper mounting bracket using the supplied hardware. If your caliper uses the M12 hardware you will need to torque them to 85 ft lbs, if your caliper uses the M14 hardware you will need to torque them to 125 ft lbs. Both bolts will need to have a blue thread locker applied to them prior to tightening.



20. Once the upright, rotor and caliper are all correctly installed you can connect your brake lines to the caliper and flush new brake fluid into the system.
21. Reinstall your wheels and tires back onto the vehicle. Lower the vehicle to the ground and torque to manufacture specs. Jounce the front end of the vehicle while rolling the vehicle back and forth to settle the suspension.

***NOTE: Ensure you have all air out of the system before trying to operate the vehicle. Hawks Motorsports is not responsible for damage to your vehicle due to installation error.***

Once assembly is complete you need to re torque the hardware and double check installation after about 100 miles of driving to make sure nothing has come loose or a step in the installation process was skipped.

### **Alignment Specifications**

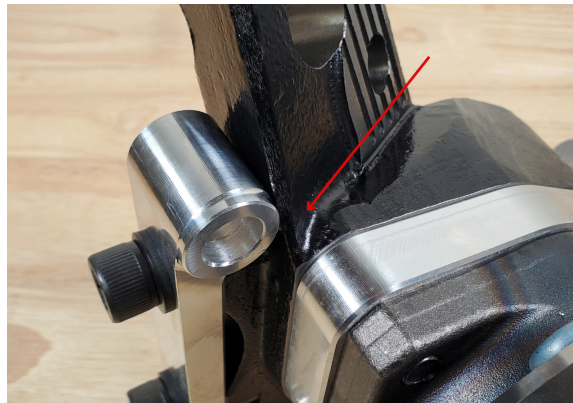
The outer tie rods will need to be lengthened on both sides due to the improved steering geometry.

Toe Settings		
Use	Setting	Tuning
Street	0 to 1/16" Toe In	Toe in increases stability under braking and turn in.
Autocross / Track	0 to 1/8" Toe Out	Toe out improves turn in response for track use, excessive toe out can cause instability or "dartiness" under braking.



## Caliper - Rotor Fitment Information

Depending on the caliper you are using you may need to clearance the upright just above the upper bearing mounting bolt, near the caliper mounting boss. This can easily be done with a handheld belt sander, grinder or Dremmel tool.



If you have questions about what calipers work with which rotors you can reference our caliper fitment chart [here](#). For best results it is typically recommended to use the rotor and caliper that came from the same platform. In some cases you can mix and match rotors to calipers but you need to ensure fitment before purchasing these components.

## Fastener Torque Specifications

Bolt Location		Torque Spec	Bolt Spec's	Notes
Wheel Bearing to Spindle		<b>90 FT/LBS</b>	M12x1.75 65mm	Does not use washers.
Caliper Bracket to Spindle		<b>85 FT/LBS</b>	M12x1.75 25mm	C5/C6 Bracket will not use washers.
Caliper Mounting Bolt				
	F-Body	<b>85 FT/LBS</b>	M12x1.75 50mm	
	C5	<b>125 FT/LBS</b>	M14x2.0 55mm	
	C6 Base	<b>125 FT/LBS</b>	M14x2.0 55mm	
	C6 Z51	<b>125 FT/LBS</b>	M14x2.0 55mm	
	C6 Z06	<b>125 FT/LBS</b>	M14x2.0 55mm	
	Gen 5 Camaro SS	<b>125 FT/LBS</b>	M14x2.0 55mm	
	Gen 5 Camaro ZL1	<b>125 FT/LBS</b>	M14x2.0 55mm	
	Gen 6 Camaro SS	<b>125 FT/LBS</b>	M14x2.0 55mm	
	Gen 6 Camaro SS/1LE	<b>125 FT/LBS</b>	M14x2.0 55mm	
	Gen 6 Camaro ZL1	<b>125 FT/LBS</b>	M14x2.0 55mm	
	Gen 6 Camaro ZL1/1LE	<b>125 FT/LBS</b>	M14x2.0 55mm	
	CTS-V Gen 1	<b>85 FT/LBS</b>	M12x1.75 50mm	
	CTS-V Gen 2	<b>125 FT/LBS</b>	M14x2.0 55mm	
	C7 Z51	<b>125 FT/LBS</b>	M14x2.0 55mm	
	C7 Z06	<b>125 FT/LBS</b>	M14x2.0 55mm	